



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

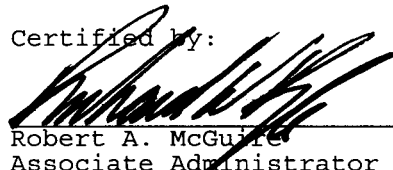
IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0703/S, REVISION 0

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and United States of America² for the transport of radioactive materials.

1. Source Identification - AEA Technology QSA, Inc. Model X7 (Manufactured on or after August 20, 1982).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate outer dimensions are 4.6 mm (0.18 in.) in diameter and 6.3 mm (0.25 in.) in length. Minimum wall thickness is 0.6 mm (0.02 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA62010, Rev. A.
3. Radioactive Contents - No more than either 740.0 MBq (20.0 mCi) of Barium-133, 37.0 GBq (1.0 Ci) of Cesium-137, 11.1 GBq (300.0 mCi) of Americium-241, or 740.0 MBq (20.0 mCi) of Radium-226. The Ba-133 is in the form of a sulfate in ion exchange beads or as a ceramic enamel. The Cs-137 is in the form of a calcium silicate in a glass matrix, sulfate in ion exchange beads, or sulfate as a ceramic enamel. The Am-241 is in the form of an oxide incorporated into a ceramic enamel. The Ra-226 is in the form of a sulfate as compressed pellets.
4. Quality Assurance - Records of Quality Assurance activities required by paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on February 28, 2010.

This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated February 10, 2005 submitted by AEA Technology QSA, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified by:


Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

MAR - 1 2005

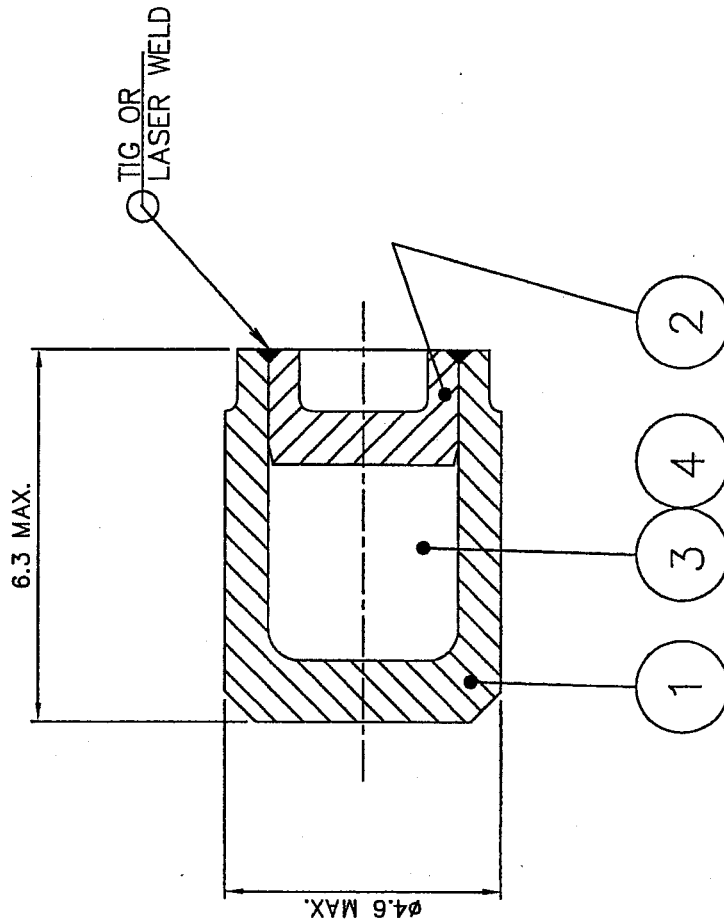
(DATE)

Revision 0 - Original issue.

¹ "Regulations for the Safe Transport of Radioactive Materials, 1996 Edition (Revised)", No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

Item	Description	No off
1	BODY	1
2	LID	1
3	ACTIVE MATERIAL	A/R
4	CERAMIC FIBRE	A/R



AEATECHNOLOGY QSA 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
APPROVALS <i>Li. Law</i> 2/8/05 <i>S. P. Loo</i> 8 Feb 05		TITLE X7 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 X.X ±0.1 X.XX ±0.05 ANGULAR ±5°		SIZE A	
DWG. NO. RBA62010		REV A	
SCALE: NONE		SHEET 1 OF 1	
ERF # 981			